

## ABSTRACT

The present invention generally provides methods for producing differentiated hematopoietic cells, including macrophages, platelets, and granulocytes, by adding cytokines to cultured synchronized bone marrow stem cells at specific phases of the cell cycle. The invention further provides differentiated hematopoietic cells produced by the methods of the invention, as well as methods for treating and/or preventing cytopenic states using the differentiated hematopoietic cells produces according to the methods of the invention.

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